Data management subteam meeting

Action items in red

September 2, 2015

DWR West Sacramento Office.

Attendees: Rosemary Hartman, Alice Low, Stacy Sherman, Dave Contreras, Alison Furler, Kris Jones, Maggie Christman, Martina Koller, Kelsey Cowin, Joy Khamphan, Sean Acuna, Daniel Huang, George Isaac(phone)

Notes:

1. Introductions
2. How does YOUR program deal with data? Everyone please be prepared to share a brief (<1 minute) synopsis of how you store and share data.
    a. CDFW is storing data on Access 2002 databases, and sharing data through an FTP site, but has reasonably good data checking policies at the project level.
    b. DWR has some more robust databases (ie, CDEC, WDL), that include web services, share some of the data through Bay-Delta Live and other portals. However, the way data is handled is different for different programs within the department.
    c. The Delta Science Program, SFWCA, the monitoring council, and Metropolitan don't deal directly with data, but help other people deal with and visualize data through coordination and funding some of the data portals.
3. Discussion: How much should our group make recommendations for individual project's data management?
    a. Provide good templates and SOPs within the Monitoring Framework. Rosie will distribute the draft SOPs we have produced for data QA/QC.
    b. Provide training and workshops on how to conduct these SOPs, with annual "field days" to make sure they are actually being conducted the same way by all groups. The PWT may not be the right forum to provide these trainings, unless additional funding is pursued. Perhaps through CABA or the Delta Science Program?
4. Discussion: Data standards, what's out there, what works, what doesn't.
    a. Look into OGC standards http://www.opengeospatial.org/standards/is for spatial data
    b. Most of the group was not familiar with standard metadata languages. We should probably just have a template within the Framework, and not be too picky about formatting so long as it includes everything in our list of critical information.
        i. The IEP trawl surveys have similar meta data language that make databases easier to follow.
    c. SWAMP has standards for water quality, but is working on expanding data types (e.g. biological). Melissa Morris leads that team.
    d. Programs that are similar to one another should talk about their QA/QC procedures to come up with a template.
    e. The National Estuarine Research Reserve may have examples of QA/QC for fish and zooplankton.
    f. The subteam should come up with a template and figure out which information is critical. Rosie will draft one for distribution.

5. Sharing data between restoration sites or with the public
    a. The Estuaries Portal and Bay-Delta Live provide some neat visualization templates, provide a 'one-stop shop' for data downloads, but more complex analyses are more expensive. There may be an opportunity to work with 34 North (developer of BDL and the estuaries portals) to suggest particular visualizations that would be helpful for assessing restoration effectiveness.
    b. While it may be easier to get funding if we say displaying our data through a data portal will be able to demonstrate the effectiveness of restoration, we should concentrate on displaying data, not analyzing it (that's too politically contentious).
    c. Static graphs and text are cheap, more complex visualizations are expensive.
    d. Graphs should be accompanied by text to put things in context.
    e. These data portals require data to be stored on a database with web services, such as CEDEN, but there currently isn't a centralized database that would be appropriate for all restoration data. DWR's Division of Environmental Services is working on a new database for all of their data (including FRP's), but we don't know if it could be expanded to other project's data at the moment. A Delta-wide environmental database would be fantastic, but there isn't manpower or funding for it at the moment. If anyone has ideas for how to make this happen…
    f. What we can do in the meantime is provide a "report template" that could be turned into both static reports and dynamic on-line dashboards. Rosie will distribute the draft analysis section and the subteams will comment on which hypotheses would be most useful to put in a "report card" style report, and potential visualizations for each hypothesis.